

MIL-HDBK-1191  
APPENDIX D: UFAS INTERPRETATIONS AND WAIVERS

D.1 This appendix provides information on written interpretations which have been issued by the Architectural and Transportation Barriers Compliance Board (ATBCB). Waivers which have been issued by ASD(FM&P) are also provided. Figure D-7 is a waiver that was issued by ASD(FM&P).

D.2 INTERPRETATIONS. The following information has been provided by the Architectural and Transportation Barriers Compliance Board and should be referenced in the following occupancies:

- Mercantile (try-on and fitting rooms)
- Health Care (x-ray or exam rooms)
- Recreational (in association with showers in swimming pools, gymnasiums, etc.)
- Educational (e.g. - if provided at athletic facilities or home-ec classrooms)

D.2.1 DRESSING ROOMS. In new construction, where dressing rooms are provided for use by the general public, patients, customers, or employees all shall be located on an accessible route. In existing construction, where structural impracticability can be demonstrated, one dressing room for each sex on each accessible floor/level shall be made accessible.

D.2.1.1 Clear Floor Space. A clear floor space allowing a person using a wheelchair to make a 180-degree turn shall be provided in every dressing room entered through a swinging or sliding door. No door shall swing into any part of the turning space. Turning space shall not be required in a private dressing room entered through a curtained opening at least 32" wide if clear floor space complying with section "Space Allowance and Reach Ranges" renders the dressing room usable by a person using a wheelchair.

D.2.1.2 Doors. All doors shall be in compliance with section "Doors".

D.2.1.3 Bench. Every dressing room shall have a 24"(min) by 48"(min) bench fixed to the wall along the longer dimension of the bench and not necessarily the room. The bench shall be mounted 17" to 19" above the floor and may be hinged. Clear floor spaces shall be provided alongside the bench to allow a person using a wheelchair to make a parallel transfer onto the bench. The structural strength of the bench and attachments shall comply with section "Structural Strength". Where installed in conjunction with showers, swimming pools, or other wet locations, water shall not accumulate upon the surface of the bench and the bench shall have a slip-resistant surface.

D.2.1.4 Mirror. A full-length mirror, measuring at least 18" wide by 54" high, shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.

D.2.1.5 Rationale. Both UFAS and MGRAD are silent re dressing rooms. We have many requests for information & assistance in applying existing standards but none seems to be entirely appropriate. Since usability is a requirement and since many persons using wheelchairs must dress/undress in a semi-recumbent position, the need for a bench is clearly demonstrated. Other requirements are derived from known space and reach dimensions.

(Note: This is an ATBCB proposal for insertion into UFAS based on their

interpretation of minimum accessibility requirements for functional use of dressing rooms. This has subsequently been provided for adoption by the Americans with Disabilities Act.)

Figures D-1 and D-2 are provided for further information.

D.3 DMFO QUESTIONS AND ANSWERS. The Defense Medical Facilities Office prepared a series of questions relative to UFAS and forwarded them to the ATBCB for interpretations. The numbers listed in the Reference column relate to paragraphs and pages in Fed-Std-795, "Uniform Federal Accessibility Standards." Answers to the questions are indicated in **bold** type.

REFERENCE

COMMENT/QUESTION

D.3.1 3.5, p3

A definition is needed for clear floor space. The definition should be explicit, especially with regard to wall hung items which may be allowed to overlap this space, such as a lavatory.

**You may use the definitions in 4.2.4.1 and 4.2.4.2, part of which allows knee space "under some objects" to be part of clear space - under a lav this would be 29"h x 30"w x 19" max per 4.19.3.**

D.3.2 4.1.2(4), &  
4.1.2(5), p5  
4.3.8, p19  
4.9, p27

There appears to be a contradiction between these sections. Section 4.3.8 states that stairs shall not be part of an accessible route. Sections 4.1.2(4) and 4.9 appear to indicate that stairs are a part of an accessible route if they connect levels which are not connected by an elevator, or other states requirements per section 4.1. This needs to be clarified.

**This is an inconsistency in UFAS terminology which we hope will be addressed as the standard setting agencies revise UFAS. Stairs, though not accessible to a person using a wheelchair, are indeed usable by people with certain disabilities and in some instances, are preferred over a ramp. It is my personal opinion that the UFAS provisions are so helpful they should be applied to all stairs in newly constructed buildings and facilities.**

- D.3.3 4.1.4(9)(b),  
p10
- This states that all common use toilet facilities shall be accessible. If an accessible toilet room is placed at the entry to a public toilet, does this satisfy this requirement even though the remainder of the toilet is not accessible? See example plan in Figure D-3.
- The example plan does not meet the requirements for new construction, however, in some alterations the proposed arrangement may be regarded as fulfilling the requirements.**
- D.3.4 4.1.4(9)(b),  
p10
- This section requires 10% of patient bedrooms and toilets to be accessible to the handicapped. Many general hospitals have several types of wards or bed categories (i.e., ICU, Pediatrics, OB-GYN and Isolation). Does this section require a minimum of 10% of each category of bed to be accessible to the handicapped?
- Yes**
- D.3.5 4.2.3, p14
- In health care facilities, does this standard require the referenced wheelchair turning space in any functional space other than toilets (4.22.3), bathrooms (4.23.3), and patient bedrooms (6.3(1))?
- When "usability" of the room or space requires a person using a wheelchair to make a turn, the turning space is required.**
- D.3.6 4.10.13, p32
- This section states that sound level of audible signals of elevators shall be no less than 20 decibels. Should the sound level be specified to be less than 20 decibels above the prevailing ambient noise level of the space?
- This paragraph covers only the sound level of the car position indicator inside the car and sets the minimum level only without regard for the ambient noise**

level (which may be assumed to be dependent on the number of people in the car as well as machine sound).

(Note: This item is currently under review by the ATBCB to determine the appropriate sound level.)

D.3.7 4.13.5,p33  
4.13.6  
4.13.11,p36

The life safety code (NFPA 101 5-2.1.4.1) does not allow doors other than side-hinged, swinging doors to be used for egress purposes. A note needs to be placed on such illustrations stating that these doors shall be used for only rooms or spaces which are not normally occupied (i.e., storage rooms, dressing booth, or single-person toilet rooms).

You are correct regarding the LSC requirements about egress in a hospital. Nothing is UFAS conflicts with LSC provisions and such a caveat has no place in the legal requirements of UFAS (but it would be a useful item in an explanatory "handbook") for UFAS is applied to many occupancy types where such doors would be permitted in occupied spaces by NFPA 101 or other building codes.

D.3.8 4.13.7,p36

Two doors in series: Is it the intent of this section to apply to "vestibules" only, where the passage through both doors is always expected?

No.

Conversely, can we assume this section is not expected to apply to a room that has two entry doors that just happen to be in line with each other? See Figure D-4.

In a room where two entry doors line up, I believe that a clear floor space 48" long (as in Fig 26) must be provided so that one door is allowed to close fully before the person must maneuver to open the opposing door.

D.3.9 4.13.7,p36

If the answer to previous question is no, delete this question. Would an ante room to an isolation room be allowed to have two doors in line, provided the following conditions are met?

- a. The approach requirements or maneuvering clearances of each door considered independent of the other door comply with Figure 25.
- b. There is a clear turn-around space that complies with Figure 3 in both the ante-room and the isolation room.

See Figure D-4.

D.3.10 4.13.7,p36

If two doors in series are located in walls perpendicular to each other, is a minimum clear distance of 48 inches required? See example plans in Figure D-5.

**Yes.**

D.3.11 4.16.2 &  
4.16.4,p38

There is a conflict between the 36" grab bar dimension and the 36" minimum dimension for lavatory placement. Is a smaller grab bar dimension permitted?

**No. The drawings in Fig. 28 appear inconsistent with the technical provisions. However, nowhere in the text is a shorter grab bar deemed acceptable. Since space must be allowed to accommodate the returns and escutcheons of the 36" grab bar, we recommend a minimum space of 39" to the edge of the lav. One must recognize also that this allowable arrangement does not permit a side transfer, only a diagonal transfer to the water closet from a wheelchair.**

D.3.12 4.16.6,p38

What is the maximum height allowed for a toilet paper dispenser?

**Not addressed, other than the 19"**

**minimum.**

Also, is there a minimum and maximum distance from the back wall?

**The maximum distance to the front edge of the dispenser is 36" (Fig 30(d)). Care must be exercised in specifying multi-roll surface mounted or projected dispensers to be mounted so as not to interfere with the use of grab bars.**

D.3.13 4.19.2,p40

Recommend that 34" maximum dimension be shown for sink rim height on Figure 32.

**Recommendation is good. We will pass this along to the standard-setting agencies for consideration in future UFAS.**

D.3.14 4.4.19.4,p40

For safety reasons in medical facilities, the water temperature to general use sinks, exam rooms, public toilets, baths, showers, treatment rooms, etc. is limited to a maximum temperature of 105 F, by DoD criteria. Is it the intent of these sections to require insulation on drains and hot water supplies when the maximum water temperature is 105 F?

**Yes - because UFAS cannot regulate maintenance and operations.**

In addition, what is the maximum and minimum temperature allowable for any exposed element?

**Not addressed. If no hot water is supplied, insulation may be omitted.**

(Note: The ATBCB has verbally stated that on lavatories, if you put an elbow directly under the drain, run the drain to the wall with a trap flat against the wall and outlet of the trap going into the wall, then insulation would not be required on the drain. Likewise, if hot and cold water supply pipes are stubbed through

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the wall just below the bottom of the sink and pipes go straight up to the faucet, then insulation would not be required.)

D.3.15 4.21.2, p42

Are the shower dimensions of shower 35(a) to be strictly complied with?

**Yes.**

Can a flexible length such as 36" to 40" for each dimension be allowed?

**No. Once a person has transferred from a wheelchair to the seat, he must be able to reach the controls and grab bar without leaning forward.**

D.3.16 4.21.2, p42

Are the shower dimensions of shower 35(b) to be strictly complied with? Is a flexible width of 30" to 36" and a flexible length of 60" to 66" acceptable?

**A 36" width is actually better. Figure 35(b) dimension of "60" should read "60 minimum".**

D.3.17 4.21.2, p42

Refer to Fig 35(b): Is the 36" x 60" clear space valid? Could the 60" dimension be reduced, since a sink is shown in the clear area?

**No. The sink must provide knee space as specified in Figure 31 to allow use of the clear floor space.**

D.3.18 4.21.4, p42

Length of grab bar needs to be specified for control side of 36" x 36" shower.

**Yes, this should be clarified. Please note that the plan and elevations indicate the grab bar continues around the corner.**

D.3.19 4.21.4, p42

Length of grab bar needs to be specified for side and control wall of 30" x 60" shower.

**Yes, this should be clarified. Plan and elevations show grab bar as continuous around 3 sides so lengths would be dependent on**

**actual size of shower.**

D.3.20 4.21.2  
4.21.4, p42

Placement of shower spray unit needs to be clarified for 30" x 60" shower unit. Figure 35(b) shows spray unit along back wall at a minimum of 27" from side wall. Figure 37(b) shows spray unit on control side of wall at 18" from entry side (or 12" from back wall). Are both configurations acceptable?

**Yes, we believe so.**

D.3.21 4.21.6  
4.21.6, p42

Is there a required height for mounting of spray unit in "fixed" position?

**It must be within the front reach range, 48" maximum.**

D.3.22 4.21.7, p43

Drawings of shower stalls in Figure 37 should be revised to delete high curbs.

**We are aware of this inconsistency. (Thanks for noticing.)**

D.3.23 4.23.3, p44

If there is a shower with no curb nor any other obstructions such as shower doors, is it allowable to have a turning space or clear space of another fixture in a single use toilet overlap the shower area? See example in Figure D-6.

**Figure D-6 does not include the required 36" x 60" clear floor space at the shower. If it did, there would also be sufficient clear floor space for the lav without encroaching on the shower.**

D.3.24. 4.28.3, p45

A frequency of 5 Hertz for flashing lights appears too fast. Is this value correct for the fast flashing frequency? Also, a minimum frequency should be specified.

**Current research recommends using a clear xenon flash tube, high intensity strobe light with an intensity of 75 to 120 candela-seconds and a flash rate of 1 to**



**3 Hertz.**

D.3.25. 4.29.3  
4.29.4, p47

Is it the intent of these sections, that any stairs which are a part of any accessible path or required emergency exit shall have no tactile warning on doors or floors?

Tactile warnings are required on doors to hazardous areas. An exit stair is a route to safety and the door to a stair should not be marked as a hazard. The tactile warning section at stairs (even though stairs are not part of an accessible route) has been "reserved", pending further research. ANSI A117.1 does call for detectable warning at the top of stairs. Such installation would not be prohibited by UFAS and may, in the case of an open stair, actually enhance safety.

D.3.26 4.30.5, p47

Section 4.1.1(7) requires display of international symbol for parking spaces, loading zones, entrances, toilets and baths which are accessible. Are there any other sections that dictate a requirement for having signage?

Yes. 4.1.2(15). It is the intent that all signs conform to 4.30.2 and 4.30.3, while permanent identification of rooms and spaces should be tactile and mounted as specified in 4.30.4 and 4.30.6. Incised letters will no longer be permitted when standard-setting agencies revise UFAS. If signs are altered, they must comply with these provisions for new construction. "Permanent identification" includes room numbers, exit stairs, restrooms, etc. not occupants names.

D.3.27 4.30.4, p47

Rooms in hospitals are frequently changed, and signage is often designed for flexibility. Many signage systems have only a room number which is a permanent portion of a sign. The room function and/or person's name is on an "interchangeable strip or insert plate". Are signs with raised room numbers only

acceptable?

**Yes.**

Signs for toilets, parking spaces, etc., as required by 4.1.1(7) would be provided as completely permanent signs.

**Yes.**

The following comments or questions will all have UFAS Section 6, page 57 as their reference:

D.3.28                      Dressing booth criteria for health care facilities needs to be developed, similar to criteria for toilet rooms. Criteria should include minimum clear space for turnaround, grab bar requirements, bench requirements, etc.

**Agree.**

D.3.29                      Are all dressing booths at a bank of dressing rooms required to be accessible?

**Yes. In new construction, they are considered to be "common use" areas.**

D.3.30                      Are all specimen toilets at a bank of specimen toilets required to be accessible?

**Yes. In new construction, they are considered to be "common use" areas.**

D.3.31                      Does this standard intend to waive accessibility requirements for specialized medical equipments and/or their installations for such equipment as follows: fume hoods; sterilizers; cart washers; incinerators; IV poles; X-ray equipment; Medi-Prep station; surgical columns; hyperbaric medicine chambers; scrub sinks; nourishment stations; vault doors; photo-processing equipment.

**UFAS does not apply to equipment.**

D.3.32                      Is it the intent of this standard

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not to require full accessibility  
with a turnaround space in the  
following spaces:

flammable storage (50)  
equipment Storage (50)  
barium prep (70)  
soiled linen (60)  
clean utility rooms (60)  
sterile storage (60)  
lab incubation room (70)      forms  
storage (50)  
anesthesia gas storage (50)  
baggage storage (40)  
trash collection (60)      acid  
storage (40)  
plaster prep storage (50)      gas  
storage (40)  
chemical mix/storage (30)  
parts storage (80)  
work rooms - nursery (50)  
vaults (40)  
music/paging controls (50)  
scrub areas (50)  
radium sealed source rm (60)  
injection room (50)

(Note: The numbers in parenthesis  
indicate the net square footage  
that has been traditionally  
assigned to these functions.)

**Depends on actual use and whether  
these spaces are restricted to  
use by able-bodied military  
personnel only. It is  
recommended that accessibility be  
provided wherever possible  
because the use of the room or  
space may change over time.**

D.3.34

Projection rooms are  
approximately 200 square feet and  
may be one level above the  
auditorium floor. Is it the  
intent of this standard to  
require an elevator for  
accessibility to this space, if  
this is the only space served?

**Must be reviewed individually.  
If opportunity exists,  
accessibility should be provided.  
If not, perhaps the situation  
warrants a waiver application.**

D.3.35

Computer rooms in medical  
facilities may be sized as small  
as 100 to 200 square feet. Is it

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the intent of this standard to require ramps and/or lifts for accessibility to this space?

D.3.36

**Absolutely.**

Revolving, "light-proof" doors are used for X-ray film processing spaces. Is it the intent of this standard that darkrooms are accessible spaces?

If yes, must the use of revolving doors be discontinued?

**In new construction, other options are available and should be selected. An existing revolving door in an existing building may have to be altered as a consequence of a 504 complaint/action.**

D.3.37

Is it the intent of this standard to make control wall configurations accessible within X-ray rooms?

**In new construction, there should be little difficulty in providing accessibility to the X-ray control wall.**

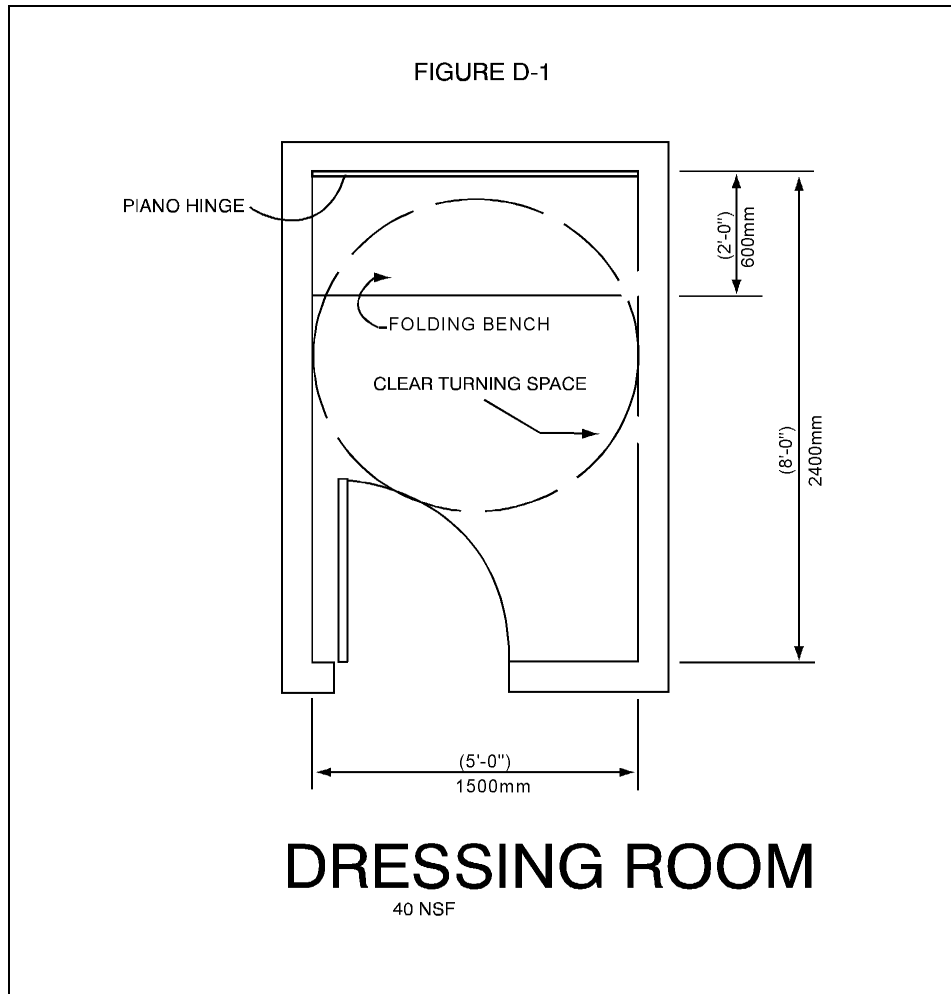
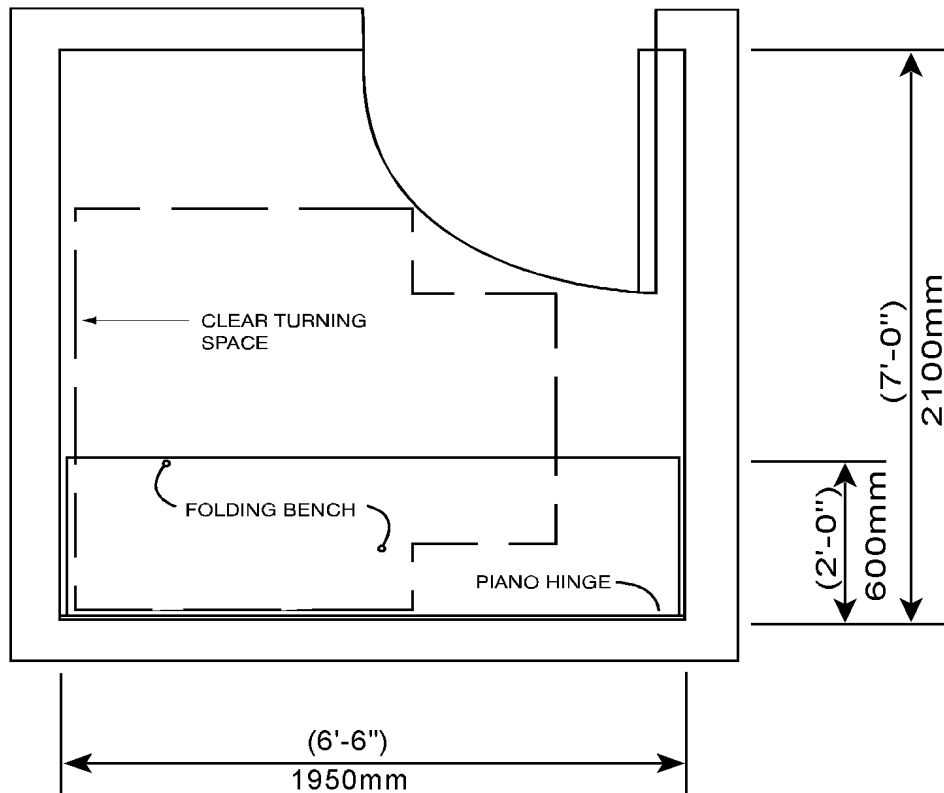


FIGURE D-1

FIGURE D-2



# DRESSING ROOM

40 NSF

FIGURE D-2

FIGURE D-3

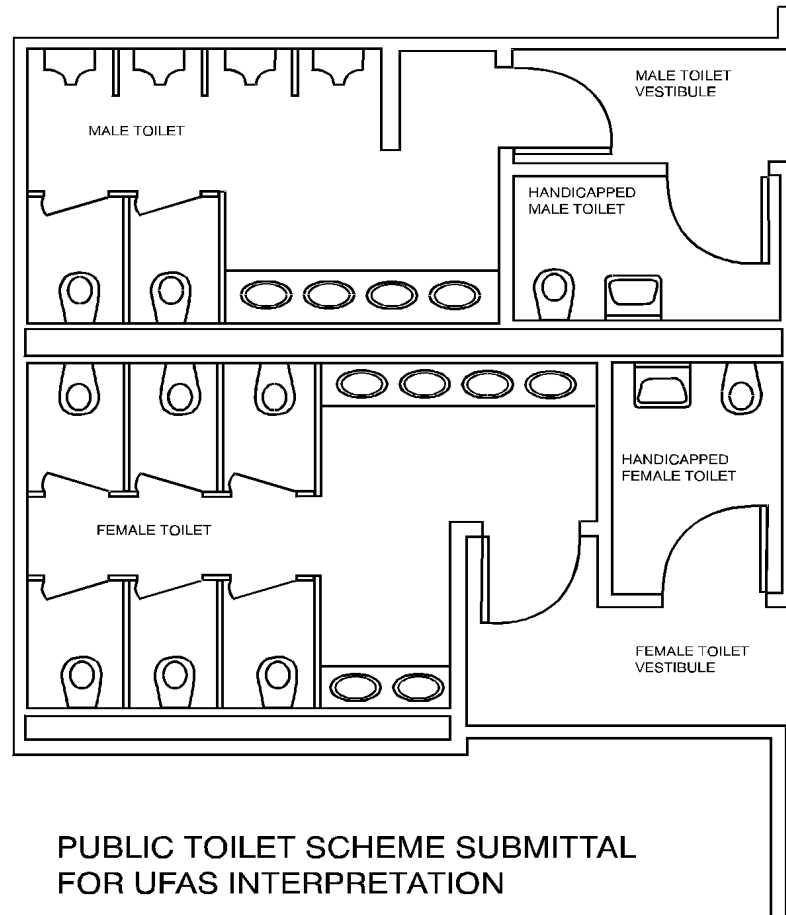


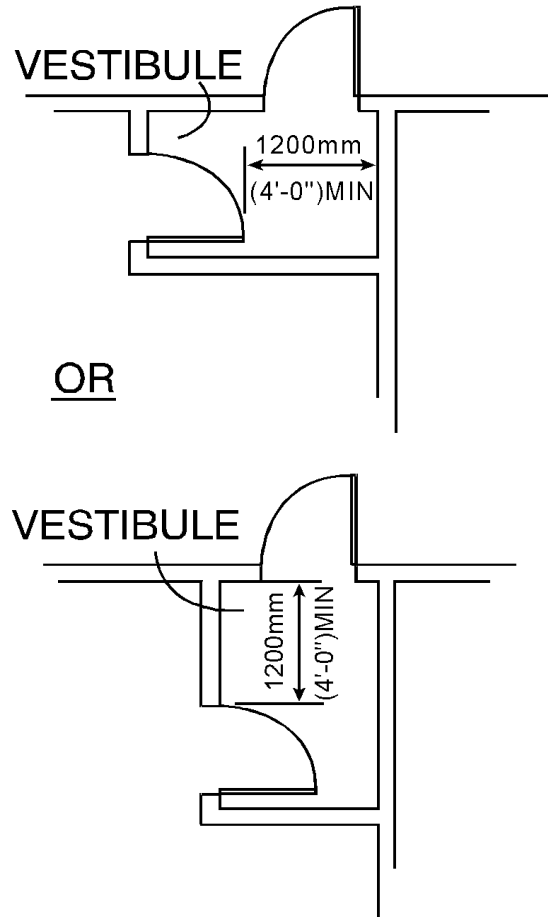
FIGURE D-3

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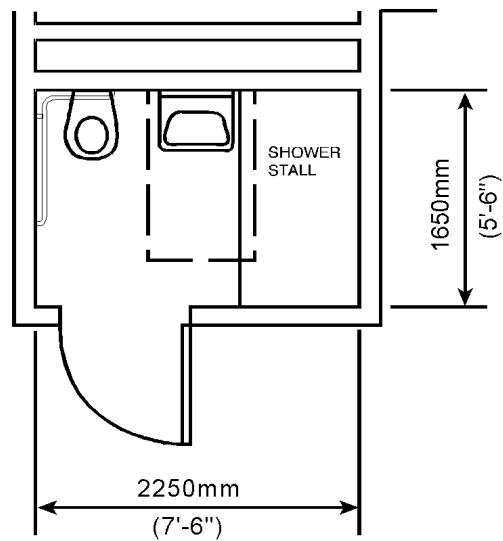
FIGURE D-5



TWO HINGED DOORS IN SERIES SUBMITTAL  
FOR UFAS INTERPRETATION

FIGURE D-5

FIGURE D-6



## BATHROOM SCHEME SUBMITTAL FOR UFAS INTERPRETATION

NOTE: CLEAR FLOOR SPACE OF SINK OVERLAPS SHOWER  
STALL, WHICH HAS NO CURB

FIGURE D-6

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ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-4000

MAY 22 1992



FORCE MANAGEMENT  
AND PERSONNEL

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)

SUBJECT: Waivers and Modifications of Accessibility Standards  
for Psychiatric Ward at Portsmouth Naval Hospital

This responds to your memorandum requesting waivers and modifications of accessibility standards to protect life safety in a psychiatric ward.

The following provisions of the Uniform Federal Accessibility Standards are hereby waived for the psychiatric ward at Portsmouth Naval Hospital:

- § 4.16.4--grab bars for water closets
- § 4.17.6--grab bars for water closets
- § 4.20.4--grab bars for bathtubs
- § 4.20.6--shower spray unit for bathtubs
- § 4.21.4--grab bars for showers
- § 4.21.6--shower spray unit for showers

These standards are being waived because of the need to take special precautions in design and construction to prevent psychiatric patients from harming themselves or other people. Grab bars and protruding shower heads give patients means to commit suicide by hanging. A hose or hand-held shower unit can be used for hanging or strangulation or as a weapon. These features therefore are not required in the psychiatric ward.

Similarly, because lavatories can be removed from the wall and used as weapons, vandal-proof lavatories are desirable in psychiatric wards. The typical vandal-proof lavatory is 14 inches wide, 12 inches deep, and 10 inches high. The typical accessible lavatory is 20 inches wide, 18 inches high, and 6 inches high. Accordingly, the following modification of § 4.19.2(M) is authorized for the psychiatric ward at Portsmouth Naval Hospital:

4.19.2(M) Height and Clearances. Vandal-proof (prison-style) lavatories shall be mounted so that 50 percent comply with Figure 31(b) and 50 percent with Figure 31(c).

The lavatories in Figure 31(b) shall be mounted with rim or counter surface no higher than 38 inches (965 mm) above the finished floor. Provide a minimum knee clearance of 27 inches (685 mm) below the lavatory. The lavatory shall project a minimum of 12 inches (305 mm) from the wall.

The lavatories in Figure 31 (c) shall be mounted with rim or counter surface no higher than 34 inches (865 mm) above the finished floor. Provide a minimum knee clearance of 23 inches (585 mm) below the lavatory. The lavatory shall

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project a minimum of 12 inches (305 mm) from the wall.

FIGURE D-7

Figures 31 (b) and (c) are attached. The rationale for using two different configurations in combination is that one facilitates a side reach from a wheelchair, while the other facilitates a forward reach.

Because modification of the standards for lavatory heights also affects mirror heights, the following modification of § 4.19. is authorized for the psychiatric ward at Portsmouth Naval Hospital:

§ 4.19.6 Mirrors. When lavatories are mounted as shown in Figure 31(b), mirrors shall be mounted with the bottom edge of the reflecting surface no higher than 40 inches (1015 mm) from the floor.

Any questions may be directed to Ms. Judith C. Gilliom of my staff at (703) 697-8661 or AUTOVON 227-8661.

Christopher Jehn

Attachments:  
As stated

FIGURE D-7

FIGURE D-7

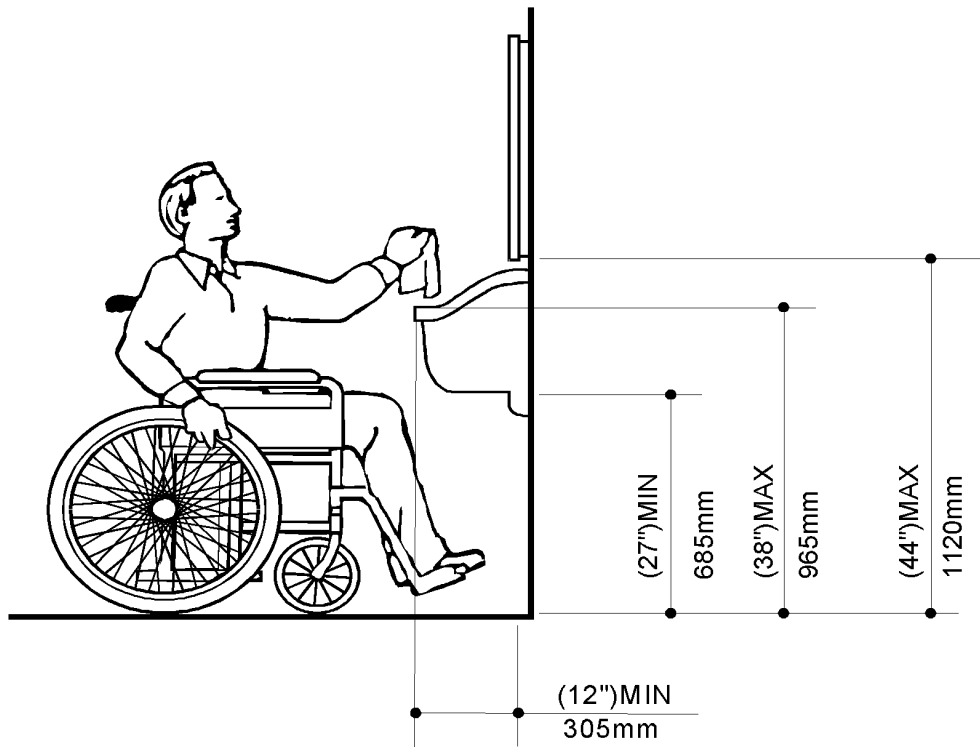


Fig. 31 (b)  
Lavatory Clearances

FIGURE D-7

FIGURE D-7

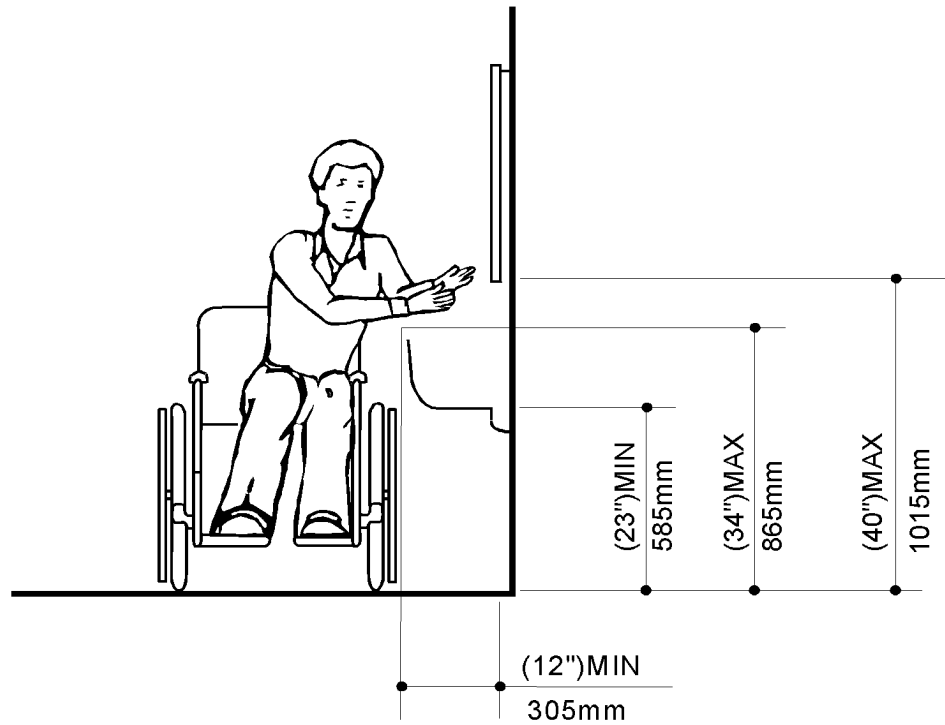


Fig. 31 (c)  
Lavatory Clearances

FIGURE D-7